

What is claimed is:

1. A vacuum breaker for warewashing chemical dispensers, including an inlet path, an outlet path, a plate-shaped packing mounted on a lower end surface of a cap, and a valve disc provided on a vertical support shaft inserted through an air hole of the cap, the valve disc being moved up and down to be able to open and close the air hole, the vacuum breaker characterized by an inlet passage provided in an inner chamber of a casing to form the inlet path substantially perpendicular to the outlet path to afford fountaining a flow of hot water perpendicularly upward, a vertical support shaft upper portion extended downwardly of a vertical support shaft of the valve disc so that the valve disc can act stably even at low pressures, a vertical support shaft lower portion of the vertical support shaft formed to have a smaller diameter than that of the air hole, a second O-ring mounted on an upper surface of the valve disc, the plate-shaped packing being mounted on a bottom surface of the cap opposed to the upper surface of the valve disc, and a cap dismounting lever provided centrally of an upper surface of the cap and having an air port.

2. A warewashing chemical dispenser comprising a detergent dissolving nozzle arranged centrally of a container receiving part, a solution outlet arranged offset from a center of the container receiving part to form a storage section T in the warewashing chemical dispenser, and a detergent feed

control circuit board received in the storage section T in the vicinity of the container receiving part and provided with a hot water control solenoid valve, a vacuum breaker, and a detergent feed control circuit board provided with an indicator and a buzzer, and wherein equipments requiring piping and wiring are received compactly in the warewashing chemical dispenser.

3. A container mounting and dismounting safety cut-off mechanism of a detergent dissolving system in a warewashing chemical dispenser, a container bearing part provided on a lower portion of a container receiving part and having substantially the same inclination as that of an inclined shoulder of a detergent container, a vertically moving shaft provided at an upper end thereof with an inclination portion corresponding to the inclined shoulder of the detergent container, a rod mounting a magnet to a lower end thereof and connected to a lower portion of the vertically moving shaft, a coil spring provided on the rod to make the vertically moving shaft vertically movable, and a detergent feed control circuit board, on which are arranged a magnetism detecting element arranged around a position of the magnet, and an indicator and a buzzer, which indicate and inform a state of feed control of a detergent, and wherein when the magnet is present in a detection range of the magnetism detecting element, feed control of the detergent is started and when the detergent container is removed and the magnet moves outside from the detection range of the magnetism

detecting element, a hot water control solenoid valve is closed after the feed control of the detergent is stopped, and simultaneously a situation of operation is informed by the indicator and the buzzer on the detergent feed control circuit board.

4. An overflow preventive mechanism of a detergent dissolving system in a warewashing chemical dispenser, comprising an overflow preventive sensor arranged in a container receiving part to be disposed in a little higher position than that of an upper surface of a detergent dissolving nozzle, and including two overflow preventive sensor electrodes, and wherein when a solution outlet is clogged and a detergent solution in a detergent dissolving system rises to contact between the two overflow preventive sensor electrodes, electric current thus flowing is detected, a signal thereof is transmitted to a microcomputer in a control circuit board to close a hot water control solenoid valve after stoppage of feed control, and simultaneously a situation of operation is informed by an indicator and a buzzer on a detergent feed control circuit board.

5. A detection mechanism of a detergent dissolving system in a warewashing chemical dispenser, comprising a protective cover pivotally mounted on one end of an upper opening through a hinge shaft, a powder adapter mounting thereto a depending piece, to which a magnet is mounted, and mounted to the protective cover, and a detection unit arranged on an upper portion of

a container receiving part and receiving therein a magnetism detecting element in a position, which is opposed to the magnet when the powder adapter is received, and wherein when the protective cover is closed, the magnet is present in a detection range of the magnetism detecting element for starting of feed control, and when the protective cover is opened, a hot water control solenoid valve is closed after the magnet comes to a position outside the detection range of the magnetism detecting element to stop feed control, and simultaneously a situation of operation is informed by an indicator and a buzzer on a detergent feed control circuit board.

6. A warewashing chemical dispenser characterized in that the vacuum breaker according to claim 1, the warewashing chemical dispenser according to claim 2, the container mounting and dismounting safety cut-off mechanism according to claim 3, the overflow preventive mechanism of the detergent dissolving system according to claim 4, the detection mechanism, the detergent feed control system, and the hot water control solenoid valve in the detergent dissolving system according to claim 5 are received compactly and collectively in the warewashing chemical dispenser.